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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,103	06/29/2006	Francis Palacin	2003CH017	5744

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CLARIANT CORPORATION  
INTELLECTUAL PROPERTY DEPARTMENT  
4000 MONROE ROAD  
CHARLOTTE, NC 28205

EXAMINER
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DIGGS, TANISHA

ART UNIT	PAPER NUMBER
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4151

MAIL DATE	DELIVERY MODE
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05/13/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/585,103	<b>Applicant(s)</b> PALACIN ET AL.	
	<b>Examiner</b> TANISHA DIGGS	<b>Art Unit</b> 4151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/20/07</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

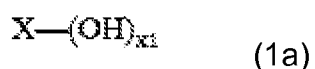
1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 3-7, 9-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrar et al (US Publication # 2003/0010459, hereafter '459 (already of record)) in view of Nigam (US Patent # 6,291,023, hereafter '023).

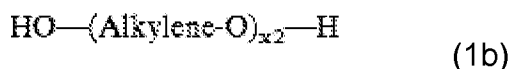
5. Regarding claims 1, 3-7, '459 teaches epichlorohydrin is reacted with a hydroxyl and primary or secondary amino compound to give a chloroterminated adduct (Spec, Pg. 2, Paragraph 21).

'459 further teaches suitable hydroxy compounds are primary C<sub>1-4</sub>-alcohols, bi- to hexa-functional aliphatic alcohols with up to six, preferably three to six, carbon atoms in the hydrocarbon radical, in particular of the following formula:

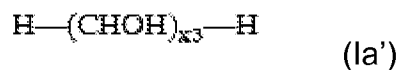


in which X signifies the x1-valent radical of a C<sub>3-6</sub>-alkane or of a corresponding cyclic ether and x1 signifies a number from 3 to the number of carbon atoms in X, or a mixture of oligohydroxyalkanes of formula (1a) (Claim 3 and 5), or a mixture one or more oligohydroxyalkanes of formula (1a), with a C<sub>2-3</sub>-alkanediol (Spec, Pg. 2, Paragraph 24-Paragraph 25).

or polyalkyleneglycols, in particular of the average formula



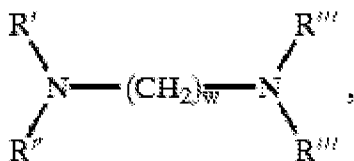
wherein Alkylene signifies C<sub>2-4</sub>-alkylene and x2 signifies a number from 2 to 40 (Claim 7) (Spec, Pg. 2, Paragraph 26-Paragraph 27). Preferred compounds of formula (1a) are those of formula



with x3 being 3 to 6. Alkylene in formula (lb) is ethylene, propylene and or butylene (Claim 6) (Spec, Pg. 2, Paragraph 28-Paragraph 29).

'459 further teaches suitable mono- or oligo-functional amines with a primary and/or a secondary amino group are for instance mono or di (C<sub>1-4</sub>-alkyl)-amines, mono- or di (C<sub>2-4</sub>-hydroxyalkyl) amines and oligo-amines with 2 to 4 carbon atoms in the alkylene bridge, such as mono or di methylamine, mono or di ethylamine, mono or di isopropylamine, mono or di ethanolamine, mono or di isopropanolamine, ethylenediamine, propylenediamine, butylenediamine, diethylenetriamine, triethylenetetramine, tetraethylenepentamine, pentaethylenehexamine and N-(2-aminoethyl)-ethanolamine (Claim 3, 4, 5 and 7) (Spec, Pg. 2- Pg. 3, Paragraph 31).

'459 further teaches



wherein R''' signifies hydrogen or C1-3 alkyl and w signifies a number from 2 to 6 (Claim 4) (Spec, Pg. 3, Paragraph 41-Paragraph 44).

'459 does not teach textile fibrous material.

'023 teaches textile or textile substrate refers to any cellulose based or non cellulose based textile material suitable for use a printing substrate in connection with the coatings (Spec, Col. 2, Lines 55-58).

Art Unit: 4151

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include cellulose or non cellulose based textile material in '459, in view of '023 for the benefit of improving the quality of images printed on both cellulose based textile material (paper) and non cellulose based textile material.

In Claim 1, "for aftertreatment of a dyed or printed textile fibrous material dyed or printed with at least one water soluble dye" is an intended use and does not carry patentable weight.

6. Regarding claim 9, '459 teaches aqueous composition (Spec, Pg. 4, Paragraph 61).

7. Regarding claims 10 and 11, '459 does not teach exhaust or impregnation process.

'023 teaches exhaust process (Spec, Col. 13, Lines 48-49). '023 further teaches suitable textile substrates for use with the present invention include textiles having natural, synthetic, cellulose-based, or non-cellulose based fibers (Spec, Col. 12, Lines 50-53). '023 further teaches aqueous inks for use in preparing a printed image may be any suitable ink having a colorant, e.g., a pigment or dye (Spec, Col. 14, Lines 6-7).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include exhaust process for the benefit of effectively coating the textile with treatment.

8. Regarding claims 12-15, '459 does not expressly water soluble dye on the fibrous material with a fixative. '459 does not expressly teach before, subsequent to and aftertreated.

'023 teaches the coating may be applied as a pretreatment, i.e., prior to printing, simultaneously with printing or as an after-treatment. '023 teaches film forming binders used in connection with the coating compositions of the invention include any film forming binder that is compatible with the coating agent and other components of the invention. Exemplary film forming binders include polysaccharides and derivatives thereof, e.g., starches (Spec, Col. 10, Lines 57-63). '023 further teaches cationic starches (Spec, Col. 11, Line 16).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the cationic starch in '459 in view of '023 for the benefit of using a cationic fixative (compatible with white pigments used in '459; Spec, Pg. 7, Paragraph 107) for improved strength of a textile substrate upon application to the substrate.

9. Regarding claims 16-20, '459 teaches epichlorohydrin is reacted with a hydroxyl and primary or secondary amino compound to give a chloroterminated adduct (Spec, Pg. 2, Paragraph 21).

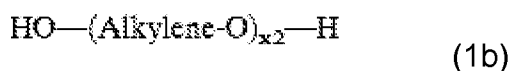
'459 further teaches suitable hydroxyl compounds are primary C<sub>1-4</sub>-alcohols, bi- to hexa-functional aliphatic alcohols with up to six, preferably three to six, carbon atoms in the hydrocarbon radical, in particular of the following formula:



Art Unit: 4151

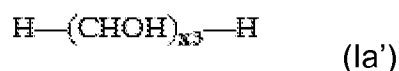
in which X signifies the x1-valent radical of a C<sub>3-6</sub>-alkane or of a corresponding cyclic ether and x1 signifies a number from 3 to the number of carbon atoms in X, or a mixture of oligohydroxyalkanes of formula (Ia), or a mixture one or more oligohydroxyalkanes of formula (Ia), with a C<sub>2-3</sub>-alkanediol.

or polyalkyleneglycols, in particular of the average formula



wherein Alkylene signifies C<sub>2-4</sub>-alkylene and x2 signifies a number from 2 to 40.

Preferred compounds of formula (Ia) are those of formula

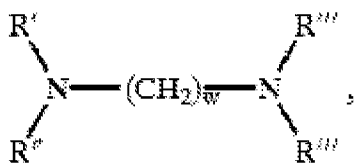


with x3 being 3 to 6. Alkylene in formula (Ib) is ethylene, propylene and or butylene (Spec, Pg. 2, Paragraph 24-Paragraph 30).

'459 further teaches suitable mono- or oligo-functional amines with a primary and/or a secondary amino group are for instance mono or di (C<sub>1-4</sub>-alkyl)-amines, mono- or di (C<sub>2-4</sub>-hydroxyalkyl) amines and oligo-amines with 2 to 4 carbon atoms in the alkylene bridge, such as mono or di methylamine, mono or di ethylamine, mono or di isopropylamine, mono or di ethanolamine, mono or di isopropanolamine, ethylenediamine, propylenediamine, butylenediamine, diethylenetriamine, triethylenetetramine, tetraethylenepentamine, pentaethylenehexamine and N-(2-aminoethyl)-ethanolamine (Spec, Pg. 2- Pg. 3, Paragraph 31).

'459 further teaches





wherein R''' signifies hydrogen or C1-3 alkyl and w signifies a number from 2 to 6 (Spec, Pg. 3, Paragraph 41-Paragraph 44).

'459 further teaches a mixture (Claim 17) (Spec, Pg. 4, Paragraph 61).

'459 does not expressly teach incorporation of a cationic fixative or dyed or printed fibrous textile.

'023 teaches textile or textile substrate refers to any cellulose based or non cellulose based textile material suitable for use a printing substrate in connection with the coatings (Spec, Col. 2, Lines 55-58).

'023 teaches film forming binders used in connection with the coating compositions of the invention include any film forming binder that is compatible with the coating agent and other components of the invention. Exemplary film forming binders include polysaccharides and derivatives thereof, e.g., starches (Spec, Col. 10, Lines 57-63). '023 further teaches cationic starches (Spec, Col. 11, Line 16).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the cationic starch in '459 in view of '023 for the benefit of using a cationic fixative (compatible with white pigments used in '459; Spec, Pg. 7, Paragraph 107) for improved strength of a textile substrate upon application to the substrate and film forming ability.

Art Unit: 4151

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include cellulose or non cellulose based textile material in '459, in view of '023 for the benefit of improving the quality of images printed on both cellulose based textile material (paper) and non cellulose based textile material.

10. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Farrar et al (US Publication # 2003/0010459, hereafter '459 (already of record)) in view of Nigam (US Patent # 6,291,023, hereafter '023), in further view of Dante et al (US Patent # 4,316,003, hereafter '003).

11. '459 and '023 do not expressly teach an epoxide reacting with an amino compound at the claimed molar ratio.

12. '003 teaches the epoxy curing agent adducts of the present invention are prepared by reacting an epoxy resin with a primary monoamine in the chemical equivalent ratio of epoxy to amine groups of from about 2:1 to about 5:4 (Spec, Col. 2, Lines 8-13). This ratio is shown to produce polymers suitable for coating composition.

13. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the epoxy reaction with a primary monoamine in '459 and '023 for the benefit of coating the substrate.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TANISHA DIGGS whose telephone number is (571)270-7730. The examiner can normally be reached on Mon-Thurs, 7:30-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Ortiz can be reached on (571)272-1206. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Katarzyna Wyrozebski/  
Primary Examiner, Art Unit 1796

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